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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,682	05/02/2001	Michael Sasges	T8466399US	2919

26912 7590 03/12/2003

GOWLING LAFLEUR HENDERSON LLP  
COMMERCE COURT WEST, SUITE 4900  
TORONTO, ON M5L 1J3  
CANADA

EXAMINER

JOHNSTON, PHILLIP A

ART UNIT PAPER NUMBER

2881

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/846,682

Applicant(s)

SASGES, MICHAEL

Examiner

Phillip A Johnston

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Detailed Action***

***Claims Rejection – 35 U.S.C. 102(e)***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,057,917 to Petersen.

Petersen (917) discloses an ultraviolet sterilizing apparatus in the following Claims;

1. An ultraviolet light fluid sterilizing apparatus comprising:  
at least one ultraviolet light source configured to irradiate a fluid with ultraviolet light to sterilize the fluid;  
an ultraviolet light sensitive silicon carbide photodiode, said photodiode capable of generating a signal proportional to the intensity of ultraviolet light detected by said photodiode; and

a sealed outer housing comprising an optically transparent window, said silicon carbide photodiode located inside said housing and adjacent said transparent window.

2. An apparatus in accordance with claim 1 further comprising a signal amplification unit coupled to said silicon carbide photodiode.

3. An apparatus in accordance with claim 2 wherein said signal amplification unit comprises an amplifier mounted on a printed circuit board, said printed circuit board located inside said housing.

4. An apparatus in accordance with claim 1 wherein said silicon carbide photodiode is sensitive to light having a wavelength ranging from about 200 to about 400 nanometers.

5. An apparatus in accordance with claim 1 wherein said optically transparent window comprises sapphire or quartz.

6. An apparatus in accordance with claim 1 wherein said housing further comprises at least one sealable outlet to permit electrical wire connections to pass through said housing.

7. An ultraviolet light fluid sterilization apparatus comprising:  
a fluid chamber:  
at least one ultraviolet light source configured to emit ultraviolet light into said fluid chamber; and  
at least one ultraviolet light sensor comprising a silicon carbide photodiode.

8. An apparatus in accordance with claim 7 wherein said ultraviolet light sensor further comprises:

a sealed outer housing comprising an optically transparent window, said silicon carbide photodiode located inside said housing and adjacent said transparent window; and

a signal amplification unit coupled to said silicon carbide photodiode.

9. An apparatus in accordance with claim 8 wherein said signal amplification unit comprises an amplifier.

10. An apparatus in accordance with claim 9 wherein said amplifier is mounted on a printed circuit board, said printed circuit board located inside said housing.

11. An apparatus in accordance with claim 7 wherein said silicon carbide photodiode is sensitive to light having a wavelength ranging from about 200 to about 400 nanometers.

12. An apparatus in accordance with claim 7 wherein said optically transparent window comprises sapphire or quartz.

13. An apparatus in accordance with claim 7 wherein said housing further comprises at least one sealable outlet to permit electrical wire connections to pass through said housing.

14. An apparatus in accordance with claim 13 further comprising a controller configured to receive, as input, a signal from said ultraviolet light sensor and to output a control signal to said ultraviolet light source to

control the intensity of the ultraviolet light emitted from said ultraviolet light source.

15. A method of sterilizing a fluid utilizing an ultraviolet light fluid sterilization apparatus, the sterilization apparatus comprising a fluid chamber, at least one ultraviolet light source, and at least one ultraviolet light sensor, each ultraviolet light source configured to emit ultraviolet light into the fluid chamber, and each ultraviolet light sensor comprising a silicon carbide photodiode, said method comprising the steps of:

flowing a fluid into the chamber of the ultraviolet light sterilization apparatus;

irradiating the fluid with ultraviolet light from the at least one ultraviolet light source of the sterilization apparatus;

measuring the intensity of the ultraviolet light in the fluid chamber with the ultraviolet light sensor;

sensing an output signal from the ultraviolet light sensor with the controller; and

adjusting the level of ultraviolet light intensity in the chamber with an output signal from the controller to the light source.

16. A method in accordance with claim 15 wherein each ultraviolet light sensor further comprises:

a sealed outer housing comprising an optically transparent window, the silicon carbide photodiode located inside the housing and adjacent the

transparent window; and

a signal amplification unit.

17. A method in accordance with claim 16 wherein signal amplification unit comprises an amplifier mounted on a printed circuit board, the printed circuit board located inside the housing.

18. A method in accordance with claim 16 wherein the silicon carbide photodiode is sensitive to light having a wavelength ranging from about 200 to about 400 nanometers.

19. A method in accordance with claim 16 wherein the optically transparent window comprises sapphire or quartz.

20. A method in accordance with claim 16 wherein said housing further comprises at least one sealable outlet to permit electrical wire connections to pass through said housing.

21. An apparatus in accordance with claim 1 further comprising a fluid chamber having an interior, said sealed outer housing coupled to said fluid chamber with said transparent window in optical cooperation with said interior of said fluid chamber, and said at least one ultraviolet light source configured to emit ultraviolet light into said fluid chamber.

See Column 4, line 16-67; Column 5, line 1-33; and Column 6, line 1-31.


Art Unit: 2881

**Conclusion**

3. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (703) 305-7022. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor John Lee can be reached at (703) 308-4116. The fax phone numbers are (703) 872-9318 for regular response activity, and (703) 872-9319 for after-final responses. In addition the customer service fax number is (703) 872- 9317.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

PJ  
March 5, 2003

  
JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800